

I CLAIM:

1. A method of improving alphabetic speech recognition by a speech recognition engine, comprising:

receiving a first spoken alphabetic character input from a user;

passing the first spoken alphabetic character input received from the user through a speech recognition engine;

at the speech recognition engine, recognizing the first spoken alphabetic character input received from the user;

querying the user for verification that the recognized alphabetic character input is the same as the first spoken alphabetic character input received from the user;

if the recognized alphabetic character input is not the same as the first spoken alphabetic character input received from the user, receiving from the user a dual tone multi-frequency (DTMF) key tone for each of one or more first spoken alphabetic characters received from the user; and

if one alphabetic character string associated with the DTMF key tones received from the user matches the first spoken alphabetic character input received from the user, designating the one alphabetic character string associated with the DTMF key tones received from the user that matches the first spoken alphabetic character input received from the user as a correct alphabetic character input.

2. The method of Claim 1, prior to receiving a first spoken alphabetic character input from the user, prompting a user to enter by one or more spoken alphabetic characters; and

loading into the speech recognition engine a grammar definition defining a set of alphabetic characters acceptable to the speech recognition engine as responsive to the prompt to the user to enter by one or more alphabetic characters.

3. The method of Claim 2, whereby the set of alphabetic characters includes the characters a, b, c, d, e, f, g, h, i, j, k, l, m, n, o, p, q, r, s, t, u, v, w, x, y, and z.

4. The method of Claim 3, whereby the alphabetic character input received from the user includes one or more alphabetic characters from the set of alphabetic characters of Claim 3.
5. The method of Claim 4, whereby the set of alphabetic characters further includes phonetic versions of the alphabetic characters of Claim 4.
6. The method of Claim 5, whereby the alphabetic character input received from the user includes one or more alphabetic characters from the set of alphabetic characters of Claim 5.
7. The method of Claim 6, whereby the alphabetic character input received from the user includes one or more combinations of alphabetic characters from the set of alphabetic characters of Claim 6.
8. The method of Claim 2, whereby the set of alphabetic characters includes numerals associated with dual tone multi-frequency (DTMF) key tones from a telephone keypad.
9. The method of Claim 8, whereby the alphabetic character input received from the user includes one or more DTMF key tones.
10. The method of Claim 9, whereby numerals associated with DTMF key tones of a telephone keypad include 1, 2, 3, 4, 5, 6, 7, 8, 9.
11. The method of Claim 10, whereby the set of alphabetic characters includes all alphabetic characters associated with the DTMF key tones.

12. The method of Claim 1, prior to querying the user for verification that the recognized alphabetic character input is the same as the first spoken alphabetic character input received from the user, converting the recognized alphabetic character input from a digital format to an audio format.

13. The method of Claim 12, whereby querying the user for verification that the recognized alphabetic character input is the same as the first spoken alphabetic character input received from the user includes presenting the audio formatted recognized character input to the user.

14. The method of Claim 13, whereby the audio formatted recognized alphabetic character input is presented to the user telephonically.

15. The method of Claim 1, prior to receiving from the user a DTMF key tone for each of the one or more spoken alphabetic characters input by the user:

prompting the user for a DTMF key tone for each of the one or more spoken alphabetic characters input by the user; and

querying the user to verify that the DTMF key tones received from the user are correct.

16. The method of Claim 1, prior to designating the alphabetic character string associated with the DTMF key tones received from the user as a correct alphabetic character input requested from the user:

determining whether an alphabetic character string associated with the DTMF tones received from the user sounds like the first spoken alphabetic character input received from the user; and

querying the user to determine whether the alphabetic character string associated with the DTMF key tones received from the user match the first spoken alphabetic character input received from the user.

17. The method of Claim 16, further comprising:

if more than one alphabetic character string is determined to be associated with the DTMF key tones received from the user that sound like the first spoken alphabetic character input received from the user,

receiving a second spoken input of the alphabetic character input from the user;

comparing the second spoken alphabetic character input received from the user to each of the more than one alphabetic character strings determined to be associated with the DTMF key tones received from the user that sound like the first spoken alphabetic character input received from the user; and

if the second spoken alphabetic character input received from the user matches one of the more than one alphabetic character strings determined to be associated with the DTMF key tones received from the user, designating the alphabetic character string associated with the DTMF key tones that matches the second spoken alphabetic character input received from the user as a correct alphabetic character.

18. A method of improving alphabetic speech recognition by a speech recognition engine, comprising:

receiving an alphabetic character input from a user via DTMF key tone selection;

determining one or more alphabetic character combinations that are represented by the DTMF key tone input received by the user;

receiving a first spoken alphabetic character input from the user by speech input;

passing the first spoken alphabetic character input received from the user through a speech recognition engine;

at the speech recognition engine, converting the first spoken alphabetic character input from an audio format to a digital format and recognizing the first spoken alphabetic character input received from the user; and

if the first spoken alphabetic character input received by the user matches one of the one or more alphabetic character combinations that are represented by the DTMF key tone input received from the user, designating the one of the one or more alphabetic character combinations that are represented by the DTMF key tone input received from the user that matches the first spoken alphabetic character input received from the user as a correct alphabetic character input.

19. The method of Claim 18, whereby the alphabetic character combinations that are represented by the DTMF key tone input received from the user may include one or more phonetic versions of alphabetic characters that are represented by the DTMF key tone input received by the user.

20. A system for improving alphabetic speech recognition by a speech recognition engine, comprising:

a speech recognition engine operative

to receive a first spoken alphabetic character input from a user;

to convert the first spoken alphabetic character input from an audio format to a digital format and to recognize the first spoken alphabetic character input received from the user;

to query the user for verification that the recognized alphabetic character input is the same as the first spoken alphabetic character input received from the user;

to receive from the user a dual tone multi-frequency (DTMF) key tone for each of one or more first spoken alphabetic characters received from the user, if the recognized alphabetic character input is not the same as the first spoken alphabetic character input received from the user; and

to designate the one alphabetic character string associated with the DTMF key tones received from the user that matches the first spoken alphabetic character input received from the user as a correct alphabetic character input if one alphabetic character string associated with the DTMF key tones received from the user matches the first spoken alphabetic character input received from the user.

21. The system of Claim 20, prior to designating the alphabetic character string associated with the DTMF key tones received from the user as a correct alphabetic character input requested from the user, the speech recognition engine being further operative

to determine whether an alphabetic character string associated with the DTMF tones received from the user sounds like the first spoken alphabetic character input received from the user; and

to query the user to determine whether the alphabetic character string associated with the DTMF key tones received from the user match the first spoken alphabetic character input received from the user.

22. The system of Claim 21, the speech recognition engine being further operative:

to receive a second spoken input of the alphabetic character input from the user if more than one alphabetic character string is determined to be associated with the DTMF key tones received from the user that sound like the first spoken alphabetic character input received from the user;

to compare the second spoken alphabetic character input received from the user to each of the more than one alphabetic character strings determined to be associated with the DTMF key tones received from the user that sound like the first spoken alphabetic character input received from the user; and

to designate the alphabetic character string associated with the DTMF key tones that matches the second spoken alphabetic character input received from the user as a correct alphabetic character if the second spoken alphabetic character input received from the user matches one of the more than one alphabetic character strings determined to be associated with the DTMF key tones received from the user.

23. A method of improving alphabetic speech recognition by a speech recognition engine, comprising:

receiving a first spoken alphabetic character input from a user;

passing the first spoken alphabetic character input received from the user through a speech recognition engine;

at the speech recognition engine, recognizing the first spoken alphabetic character input received from the user;

querying the user for verification that the recognized alphabetic character input is the same as the first spoken alphabetic character input received from the user;

if the recognized alphabetic character input is not the same as the first spoken alphabetic character input received from the user, receiving from the user a keypad entry for each of one or more first spoken alphabetic characters received from the user; and

if one alphabetic character string associated with the keypad entry received from the user matches the first spoken alphabetic character input received from the user, designating the one alphabetic character string associated with the keypad entry received from the user that matches the first spoken alphabetic character input received from the user as a correct alphabetic character input.